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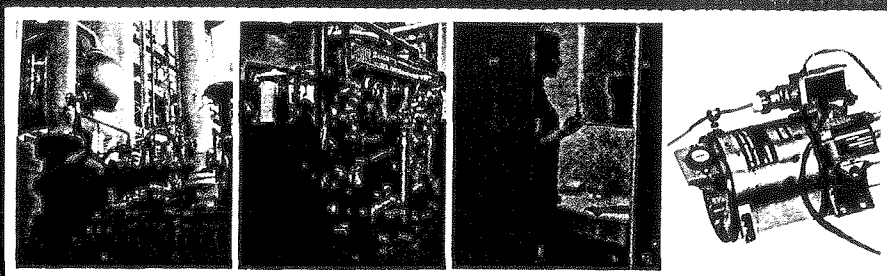
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BUSINESS LIBRARY

CRANE CO. ANNUAL REPORT

1967

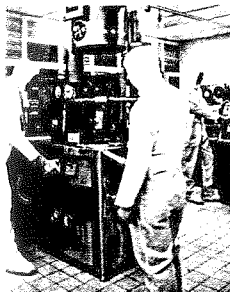


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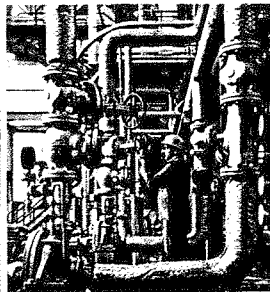
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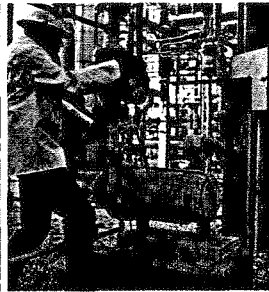
sting coolant pumps
a Hydro-Aire Clean
om.



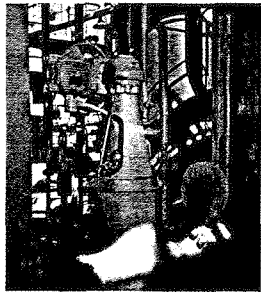
Steel valves at a nickel
refinery in Wales (Photo:
INTERNATIONAL NICKEL
1967/2)



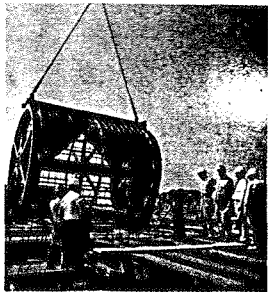
Chempump installed in a
West Coast refinery.



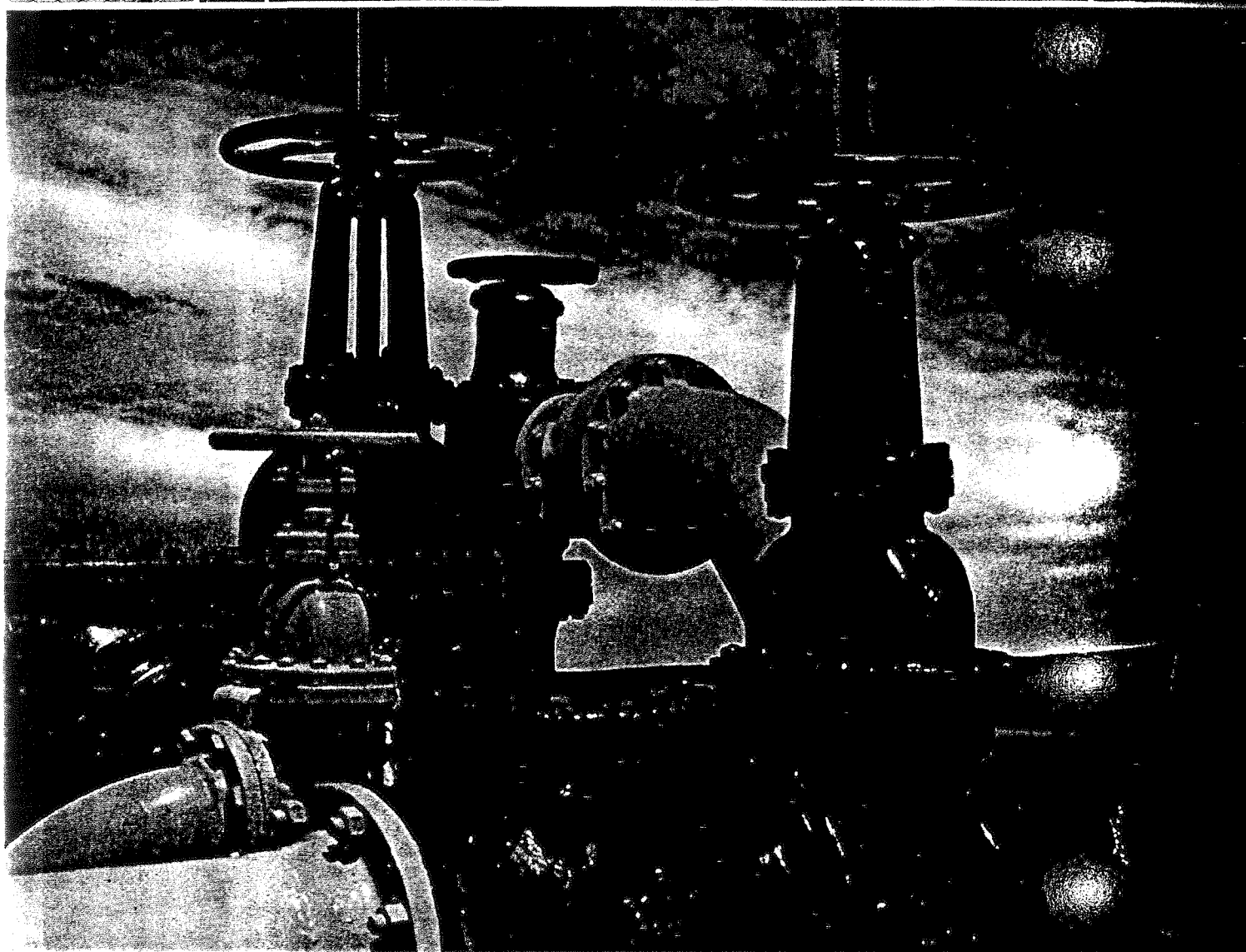
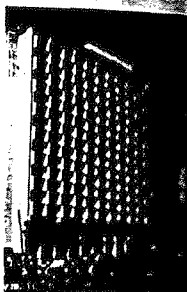
Crane valve and Teledyne
operator on high-pressure
gas line.



Microtrainer being
positioned in a Chicago
sewage treatment plant.



New San Antonio hotel
chooses Crane plumbing
fixtures.

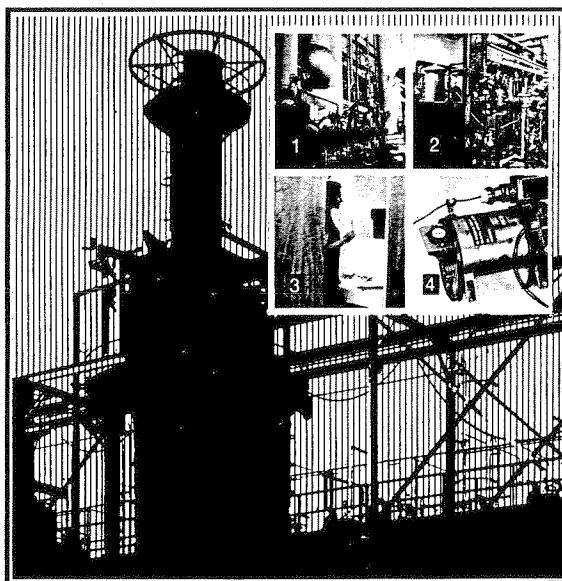


CRANE CO. ANNUAL REPORT

1967

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World-wide Facilities	20
Officers and Directors	Inside Back Cover



The photographs inset on the front cover highlight Crane Co.'s operations in the fields of fluid handling systems with (1) fluid control and (2) water treatment and purification equipment, (3) comfort conditioning and sanitary control, and (4) the stabilization and control of moving objects. A detailed report of these activities will be found on pages 11 to 19.

Financial Highlights

	1967	1966
Sales	\$403,361,000	\$405,900,000
Net Income	10,228,000	11,250,000
Cash Dividends	4,160,000	3,517,000
Net Working Capital	118,839,000	107,040,000
Total Assets	246,672,000	224,420,000
Common Shareholders' Equity	133,831,000	128,250,000
Common Shares Outstanding at Year End	2,482,166	2,482,166
Ratios at Year End:		
Net Income to Sales	2.5%	2.8%
Common Shareholders' Net Income to Average Equity	7.7%	8.9%
Current Ratio	4.0/1	3.9/1
Per Common Share:		
Net Income	\$ 4.05	\$ 4.53
Depreciation	3.48	3.12
Cash Flow from Operations	7.53	6.87
Cash Dividends	1.60	1.41
Common Shareholders' Equity	53.92	51.67

To The Shareholders:

1967 Performance

Crane Co.'s sales and earnings for 1967 were the second highest for the Company in the past ten years.

Net sales totaled \$403,361,000, compared with \$405,907,000 for 1966.

Net income was \$10,228,000, or \$4.05 per common share, compared with \$11,251,000, or \$4.45 per share.

Cash flow from operations (net income plus depreciation) amounted to \$18.9 million, or \$7.53 per common share, compared with \$19.4 million, or \$7.72 per share in 1966. Net working capital at 1967 year-end was \$118,839,000, for a current ratio of 4.0/1, compared with \$107,044,000 and a current ratio of 3.2/1 at the end of the prior year.

Common shareholders' net income to average equity was 7.7 percent, compared with 8.9 percent last year which was the highest in the Company's history. Common shareholders' equity per share was \$53.92 at the end of 1967, a new high, compared with \$51.67 per share at the end of 1966.

The Company continued to pay quarterly dividends of \$.40 per common share.

The year-end backlog of orders was at approximately the same high level as a year earlier.

Pension costs charged against operations in 1967 were \$2,303,000, compared with \$2,176,000 in 1966.

Operations in North America produced 67.7 percent of consolidated earnings and represented 83.4 percent of consolidated equity—substantially the same as in 1966.

The decline in sales and earnings is attributable to a lower level of activity in the building and construction industry in North America during the first nine months of 1967. Earnings were also affected by start-up costs of new plants presently under construction in Washington, Iowa; Brantford, Ontario; Armentieres, France; Herne, Germany; and Madrid, Spain. Another adverse factor was the cost of strikes in the first half of the year.

Through the Company's policy of borrowing in foreign currencies to finance its multi-national operations, the recent devaluation of foreign currencies had only a nominal effect upon Crane's earnings and financial position.

Financing Future Growth

Crane secured additional funds in 1967 to finance its future growth. In June, it arranged a \$10 million industrial development revenue bond issue to finance a new iron valve plant in Washington, Iowa, with a maximum annual rental obligation of \$772,000 over a 25-year period. In August, the Company sold \$40 million of 25-year sinking fund debentures to pay off the existing bank loan and to provide funds for additional working capital and expansion. The Company arranged, through delayed delivery contracts, to defer receipt of \$8,250,000 of the proceeds until January 4, 1968.

In August, Crane, Ltd. (England) arranged for a new 5-year term loan of \$4,320,000, of which \$2,464,000 is currently outstanding. During the last quarter of the year, Crane Co. guaranteed two 5-year term loans totaling 90 million pesetas (\$1,286,000) for use by its Spanish subsidiary, of which \$298,000 had been borrowed at year-end.

Developing Future Capabilities

Crane continued, through internal development and through acquisitions, to build and broaden its industrial product capabilities—more than two-thirds of its sales volume—and to strengthen its position in the building and construction industry.

Considerable attention is being given to growth areas—particularly the markets for water treatment and conditioning; aircraft and aerospace systems; and urban redevelopment. Through the broad background of knowledge and experience available in our well-established Cochrane and Glenfield & Kennedy operations, Crane enjoys a position of leadership in water treatment and conditioning. In addition, Crane is working under Government research contracts in the fields of desalination and pollution control. Hydro-Aire Division provides an excellent opportunity for the Company to expand its activities in profitable aircraft and aerospace applications as well as braking systems for all types of vehicles. Crane's production of a low-cost fiberglass-reinforced modular bathroom unit is a further step toward an increased share of the markets for low-cost housing and urban redevelopment.

To The Shareholders: Continued

Through the Research & Development Center in Chicago, increased emphasis is being placed on the products of tomorrow. In 1967, Crane introduced over 100 new or improved products to world-wide markets. These are expected to make substantial contributions to sales and profits beginning in 1968. Crane's world-wide R & D efforts hold great promise for the Company's future.

The Company invested \$11,656,000 in additional facilities in 1967, the highest level of new facilities spending in some years. In 1968 the Company expects to spend more for new facility construction.

During the year, Crane acquired two small companies with excellent product bases. In July, an important addition to the valve product line was made with the purchase of Flomatics, Inc., a California designer and manufacturer of control valves and operators. In September, the Company acquired Reff Plastics Limited, Canadian designer and manufacturer of fiberglass-reinforced modular bathroom units, which will enable Crane to increase its penetration of the low-cost housing market.

To further broaden our share of the industrial market, Crane undertook, during 1967, to acquire a major interest in the Westinghouse Air Brake Company. Crane presently owns 500,000 Westinghouse Air Brake Company shares, approximately 11 percent of the outstanding common stock. The Company believes that a consolidation of the strengths of these two organizations would be in the best interest of both Crane and Westinghouse Air Brake Company stockholders, as well as the public in general. Since Crane has not been able to secure the cooperation of the Westinghouse Air Brake Company Directors to merge, it is presently intended to hold the stock as an investment. In the meantime, Crane will take whatever action is necessary to protect its investment.

Other Corporate Matters

As reported last year, the Company was indicted in 1966 by a Federal Grand Jury charging certain violations of the Sherman Anti-Trust Act. The Company has pleaded *nolo contendere* to one of these charges and, at this time, no penalty has been imposed by the court.

In the remaining charge to which the Company has pleaded not guilty a trial date has not yet been set. Various private civil suits have also been filed. The Company intends to vigorously defend all such pending suits. We are advised by counsel that the ultimate effect of these actions should not materially affect Crane's financial position or earnings.

On behalf of the Board of Directors, we wish to express our gratitude to Crane's 21,500 employees and our growing list of customers and shareholders, all of whom helped to make 1967 another significant year for Crane Co.

Respectfully submitted,

D. C. Fabiani

D. C. Fabiani, President

T. M. Evans

T. M. Evans, Chairman

February 29, 1968



D. C. Fabiani and T. M. Evans in the Company's New York Executive Office.

Consolidated

Sales

Operating Costs and Expenses

Cost of sales

Selling, general and administrative

Operating Profit

Income (Deduction)

Interest—net

Gain on disposal of capital assets

Other miscellaneous

Income Before Income Taxes

Provision for Income Taxes

Income

Consolidated Statement

at Beginning of Year

Income

Shares:

Outstanding shares—\$3.75 per share

On Shares:

—\$1.60 per share (\$2.56)

Market value of shares

20% stock dividend

Cost Over Par Value

Preferred (14,100 in 1966)

614 issued under stock purchase plan (1966)

at End of Year

Crane Co. and subsidiaries

Consolidated Statement of Income For Years Ended December 31

	1967	1966
Net Sales	\$403,360,619	\$405,906,737
Operating Costs and Expenses:		
Cost of sales	329,859,812	331,825,432
Selling, general and administrative	54,335,527	51,643,339
	<u>384,195,339</u>	<u>383,468,771</u>
Operating Profit	19,165,280	22,437,966
Other Income (Deductions):		
Interest—net	(2,314,957)	(2,554,631)
Gain on disposal of capital assets—net	734,493	290,360
Miscellaneous	(257,679)	111,170
	<u>(1,838,143)</u>	<u>(2,153,101)</u>
Income Before Income Taxes	17,327,137	20,284,865
Provision for Income Taxes	7,098,887	9,033,780
Net Income	<u>\$10,228,250</u>	<u>\$11,251,085</u>

Consolidated Statement of Earned Surplus For Years Ended December 31

	1967	1966
Balance at Beginning of Year	\$ 63,098,488	\$ 69,226,497
Net Income	10,228,250	11,251,085
	<u>73,326,738</u>	<u>80,477,582</u>
Dividends:		
Preferred shares—\$3.75 per share	178,564	197,765
Common Shares:		
Cash—\$1.60 per share (\$1.33 in 1966)	3,981,809	3,319,091
Stock—Market value of 413,652 shares issued in December 1966, as 20% stock dividend	—	13,443,690
Excess of Cost Over Par Value of Reacquired Shares—Net:		
3,660 preferred (14,100 in 1966) and 20,600 common reacquired, less 20,614 issued under stock options (30,700 and 18,000, respectively in 1966)	492,093	418,548
	<u>4,652,466</u>	<u>17,379,094</u>
Balance at End of Year	<u>\$ 68,674,272</u>	<u>\$ 63,098,488</u>

Consolidated Balance Sheet At December 31

	1967	1966	
ASSETS			
Current Assets:			
Cash	\$ 18,435,599	\$ 17,851,000	
Marketable securities, at cost which approximates market, and delayed delivery contracts in 1967	9,954,383	6,855,100	
Accounts receivable, less allowances for doubtful accounts— \$1,248,641 in 1967; \$1,436,252 in 1966	57,595,402	57,554,400	
Inventories, at lower of cost or market (after deducting reserves of \$22,314,609 in 1967 and \$21,659,078 in 1966 to state the principal inventories in the U.S. on a LIFO basis):			
Finished goods	30,803,948	32,710,000	
Work in process	27,774,423	26,481,000	
Raw materials and supplies	12,971,735	12,872,000	
	<u>71,550,106</u>	<u>72,063,000</u>	
Prepaid expenses	1,504,729	820,000	
Total Current Assets	159,040,219	155,258,000	
Investments and Other Assets at Cost:			
Investment in Westinghouse Air Brake Company	16,607,544	16,607,544	
Other investments	2,828,551	5,100,000	
Other assets	2,383,480	1,920,000	
	<u>21,819,575</u>	<u>23,627,544</u>	
Property, Plant and Equipment at Cost:			
Land	4,814,288	4,814,288	
Buildings and improvements	60,522,962	57,440,000	
Machinery and equipment	126,462,458	117,800,000	
	<u>191,799,708</u>	<u>180,054,288</u>	
Less accumulated depreciation	125,987,012	118,010,000	
	<u>65,812,696</u>	<u>62,044,288</u>	
	<u><u>\$246,672,490</u></u>	<u><u>\$244,098,576</u></u>	

LIABILITIES AND SHAREHOLDERS' EQUITY

Current Liabilities:

Current maturities of long-term debt	\$ 360,811	\$ 3,798,727
Loans payable by foreign subsidiaries	3,140,450	5,083,892
Accounts payable	16,323,852	15,881,436
Accrued payrolls, taxes and other liabilities	16,099,851	16,166,392
U.S. and foreign taxes on income	4,276,397	7,295,042
Total Current Liabilities	40,201,361	48,225,489

Long-Term Debt	62,035,875	38,304,557
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Minority Interest in Foreign Subsidiaries	3,170,152	1,132,959
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Deferred Credit from Acquisitions	491,690	796,882
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Shareholders' Equity:

Preference Stock of Glenfield & Kennedy Holdings Limited, 5½% ...	2,400,000	2,800,000
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Cumulative preferred shares, 3¾% par value \$100 (redeemable at the option of the Company and subject to sinking fund requirements):		
Authorized 84,656 shares in 1967 (88,206 in 1966); outstanding—45,426 shares in 1967 and 49,086 shares in 1966 (after deducting 39,230 shares in treasury in 1967 and 39,120 shares in 1966)	4,542,600	4,908,600

Serial preferred shares, par value \$5:		
Authorized—600,000 shares in 1967 and 1966	—	—

Common Shareholders' Equity:

Common shares, par value \$25: Authorized—5,000,000 shares; outstanding—2,482,166 shares in 1967 and 2,482,152 shares in 1966 (after deducting 147,330 shares in treasury in 1967 and 138,280 shares in 1966)	62,054,150	62,053,800
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Capital surplus from 20% stock dividend	3,102,390	3,102,390
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Earned surplus—\$11,422,115 in 1967 (\$28,211,347 in 1966) is not restricted as to payment of common dividends	68,674,272	63,098,488
--	------------	------------

Total Common Shareholders' Equity	133,830,812	128,254,678
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Total Shareholders' Equity	140,773,412	135,963,278
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	<u>\$246,672,490</u>	<u>\$224,423,165</u>
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Consolidated Statement of Changes in Net Working Capital

For Years Ended December 31

SOURCE OF NET WORKING CAPITAL

	1967	1966
Net income	\$ 10,228,250	\$ 11,251,085
Depreciation	8,632,062	8,124,427
Cash flow from operations	18,860,312	19,375,512
Disposals of property, plant and equipment	1,277,731	3,534,548
Preference stock of Glenfield & Kennedy Holdings Limited	—	2,800,000
Long-term debt—net (see details below)	23,731,318	311,707
Other	1,332,001	598,397
	<u>\$ 45,201,362</u>	<u>\$ 26,620,169</u>

USE OF NET WORKING CAPITAL

Acquisition of new business facilities	\$ 131,278	\$ 6,093,811
Additions to existing plant and equipment	13,536,581	9,218,633
Investments and other assets	14,720,752	4,445,217
Reacquisition of shares (less options exercised)	857,743	2,148,044
Cash dividends paid	4,160,373	3,516,000
Increase in net working capital	11,794,635	1,200,200
	<u>\$ 45,201,362</u>	<u>\$ 26,620,169</u>

Details of Long-Term Debt At December 31

Crane Co.:

	1967	1966
Sinking fund debentures due June 1992, redeemable through a mandatory sinking fund, commencing June 1973 at \$2,000,000 annually, plus interest at 6½%. The indenture imposes certain limitations relating to additional borrowings, declaration of dividends and acquisition of capital stock	\$ 40,000,000	\$ 19,250,000
Bank loan	—	—
Serial promissory notes due November 1977, payable annually, plus interest at 6% and 6½%	1,431,562	—
Miscellaneous	400,000	—
	<u>41,831,562</u>	<u>19,250,000</u>
Crane Canada Limited sinking fund debentures (secured by a general claim on property and assets), due May 1985, redeemable through a mandatory sinking fund payable at \$407,000 annually, plus interest at 5¾%	8,954,000	9,361,000
Crane Ltd. (England) term bank loans due:		
February 1969, interest currently at 8½% (7½% in 1966)	4,320,000	5,040,000
August 1972, interest currently at 8¾%	2,464,464	—
Glenfield & Kennedy Holdings Limited unsecured loan stock due 1982, interest at 5¾%	3,760,860	4,387,000
Miscellaneous	704,989	26,000
	<u>20,204,313</u>	<u>19,054,000</u>
	<u>\$ 62,035,875</u>	<u>\$ 38,304,000</u>

Status of Stock-Option Plans At December 31, 1967

Plan Adopted in 1951	Number of shares	Price per share
Balance outstanding January 1, 1967	28,680	\$13.54—\$29.07
Options granted	—	—
Options cancelled	—	—
Options exercised (11,550 shares issued from treasury)	(13,510)	13.54— 28.98
Balance outstanding December 31, 1967	<u>15,170</u>	17.50— 29.07

Of the balance outstanding at December 31, 1967, options for 13,010 shares were exercisable. No additional options are to be granted under this plan.

Plan Adopted in 1965		
Balance outstanding January 1, 1967	26,520	\$24.58—\$47.29
Options granted	2,500	40.75— 53.75
Options cancelled	(1,000)	40.75
Options exercised	(7,104)	26.04— 29.58
Balance outstanding December 31, 1967	<u>20,916</u>	24.58— 53.75

Of the balance outstanding at December 31, 1967, options for 7,680 shares were exercisable and options as to 91,260 shares could be granted (compared with 92,760 at December 31, 1966).

Report of Certified Public Accountants

To the Shareholders of Crane Co.:

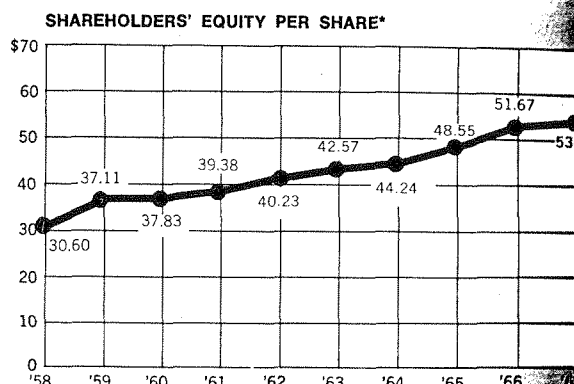
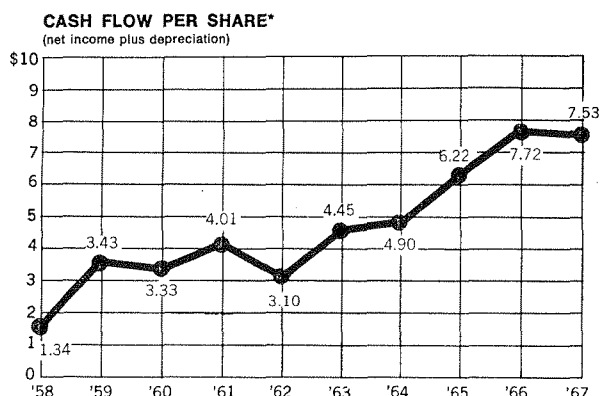
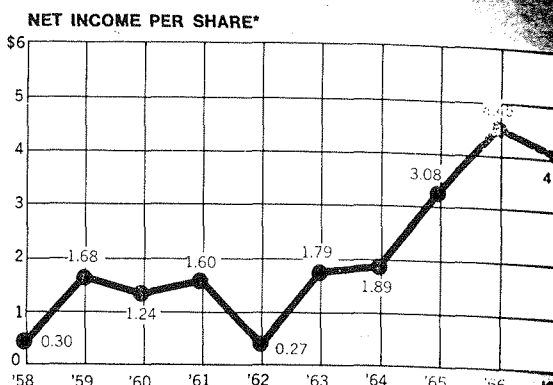
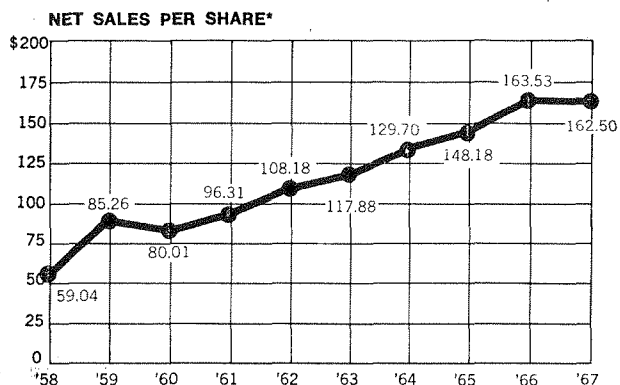
We have examined the accompanying consolidated balance sheet of Crane Co. and subsidiaries at December 31, 1967 and the related consolidated statements of income, earned surplus and changes in net working capital for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other audit-

ing procedures as we considered necessary in the circumstances.

In our opinion, the statements mentioned above present fairly the consolidated financial position of Crane Co. and subsidiaries at December 31, 1967, the consolidated results of their operations and the changes in their net working capital for the year then ended, in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Arthur Young & Company

New York, N. Y., January 29, 1968

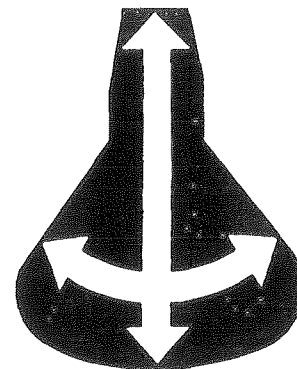


*In dollars per common share outstanding at end of year.

Ten-Year Consolidated Financial Summary

	Net Sales	Income Before Income Taxes	Net Income	Net Working Capital	Depreciation	Preferred Shares	Common Shareholders' Equity		
							Total	Per Share	Per Share
1958	\$336,196,279	\$ 3,897,185	\$ 2,167,345	\$136,163,472	\$5,915,406	\$11,406,185	\$174,250,476	\$30.60	\$0.30
1959	310,172,639	13,585,161	6,517,746	84,626,580	6,369,811	10,941,523	135,003,440	37.11	1.68
1960	285,618,712	7,216,250	4,824,463	89,560,647	7,457,676	10,459,300	135,064,791	37.83	1.24
1961	319,556,202	9,121,253	5,675,770	99,371,959	8,000,070	10,009,300	130,649,983	39.38	1.60
1962	333,766,863	6,926,092	1,176,184	88,226,079	8,383,196	9,109,300	124,105,295	40.23	0.27
1963	337,365,571	10,703,634	5,447,378	92,081,379	7,606,845	8,441,300	121,833,594	42.57	1.79
1964	357,823,354	10,028,987	5,529,829	96,098,246	8,316,181	8,069,300	122,086,670	44.24	1.89
1965	370,084,039	13,836,113	7,991,351	105,843,822	7,846,942	6,318,600	121,256,497	48.55	3.08
1966	405,906,737	20,284,865	11,251,085	107,044,223	8,124,427	4,908,600	128,254,678	51.67	4.45
1967	403,360,619	17,327,137	10,228,250	118,838,858	8,632,062	4,542,600	133,830,812	53.92	4.00

The 1962 net income has been restated to reflect an extraordinary item previously charged to a reserve for foreign contingencies. The balance of this reserve, together with a 1965 addition, has been retroactively restored to earned surplus.



Stabilization and Control of Moving Objects

Crane's Hydro-Aire Division is a major supplier of aircraft and aerospace equipment. The Division manufactures skid control braking systems, hydraulic components, pneumatic subsystems and fuel pumps. All are in growing demand.

In 1967, Hydro-Aire completed a 19,400 square foot plant expansion as part of a program to improve "in-house" capabilities and add to research and development facilities.

Aircraft Contracts

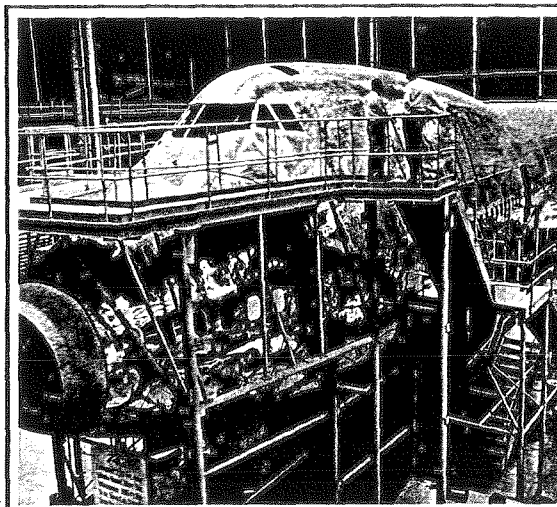
Hydro-Aire is the leading producer of skid control braking systems. Its Hytrol system, in one configuration or another, is used on virtually every U.S.-built commercial and military aircraft as well as several foreign commercial transports.

In 1967, the Division received a multi-million dollar contract from The Boeing Company for Hytrol systems to be used on their new 747 superjet. This will cover work to be performed over the next several years.

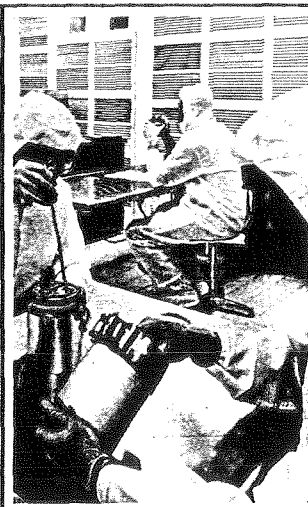
Hytrol was specified for the U.S. Air Force's C5A, the world's largest military cargo transport. Another U.S.A.F. order involved a contract to produce skid control braking system modification kits for C-130 turboprop transports. Hydro-Aire will supply kits, aerospace ground equipment, technical data and spare parts. The Division also was awarded the skid control braking systems for the LTV A7D aircraft.

Pump Applications

Hydro-Aire produces and markets special pumps for missile, space ex-



The Boeing 747, carrying up to 490 passengers, will be equipped with the "Hytrol Mark III", utilizing advanced hydraulic sensors and solid state electronics.



Precision assembly of a Lunar Module coolant pump is performed under Class 100 Clean Room conditions.

ploration, deep submergence and aircraft applications. The Division has been a major supplier of aircraft fuel booster, jettison and transfer pumps for over a decade. In 1967, it received a major Boeing contract for eight booster and six jettison pumps to be installed on each 747 superjet.

Hydro-Aire coolant pumps are operating at the heart of environmental control systems in space in such projects as the Lunar Excursion Module and the Apollo program. Hydraulic piston motor/pump orders were received from Boeing's SRAM missile and for Ryan Aeronautical Company's supersonic "Firebee" drone aircraft.

Future Demand

Last year, Hydro-Aire negotiated an agreement that will provide the Division an excellent basic design for an engine-driven pump for aircraft en-

gine applications. This pump has advantages in the area of high pressure, high speeds and lower weight. Significant market penetration is expected in 1968.

An agreement was also negotiated with Kelsey-Hayes Company, who will manufacture and market Hytrol as a skid control braking system for automotive equipment. The system has been extensively tested and has proved very effective. The agreement covers only the automotive field, leaving Crane free to work with other moving equipment such as trains.

Even with these developments, the aircraft industry will remain as Hydro-Aire's major market. Leadership in skid control braking systems, supported by fuel pumps, jet engine accessories and hydraulic products indicates increasing sales volume in commercial and military aviation.

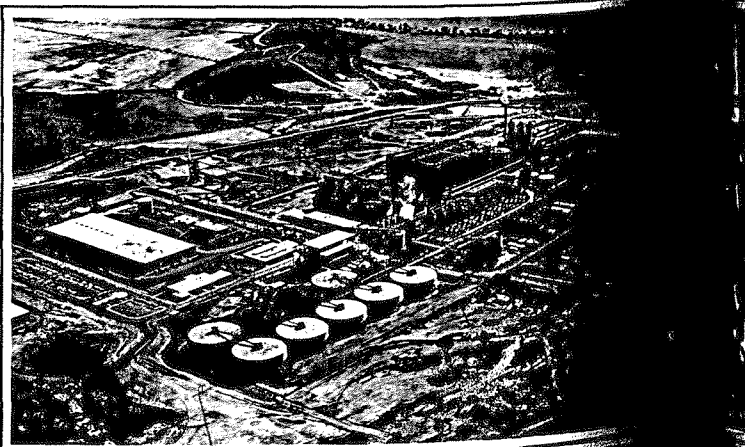
Let your friends and important
 people that you see in your party
 do the same. Don't miss it. It's only once.

For some officers like the 1st Cavalry's Walter E. "Red" ...

[illegible]

New construction is expected to increase over the next few years. In Spain, a 60,000-Sq-ft plant is being built near Madrid for production of steel valves for use in chemical and shipbuilding. Construction is also planned in Mexico where it is expected that there will be a large steel valve market.

Diebstahl eines roten und eines schwarzen Hutes, die
in einem 2. Hute, diese spezifisch durchgehenden, die nicht
Stimmung von 21. Hute, welche 1. Hute 21. Hute, die 21. Hute
in der Hute, in der Hute, in der Hute, in der Hute



• Improved Value

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in 1968. For this purpose, to interpret more than 35 new and reclassified cases of olive flies, *Bombus dorsalis* will be expansion of this phenomenon. Control of olive fly by various new types and identifying the different types, for example, *Bombus dorsalis*, and more with various species.

Reporting Valve Markings

THE UNITED STATES OF AMERICA

in other domestic markets, particularly in the mechanical equipment sector. The steel and metal supply remains strong and all types remained high.

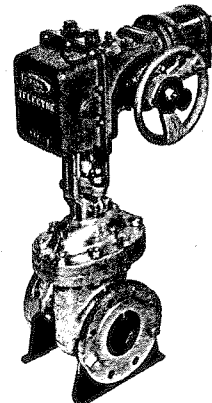
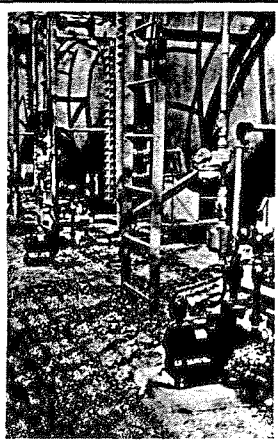
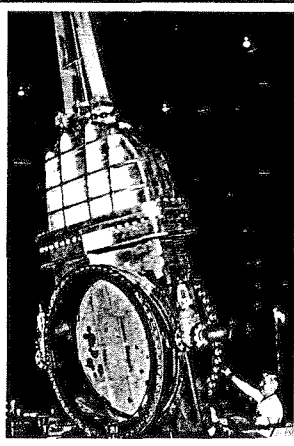
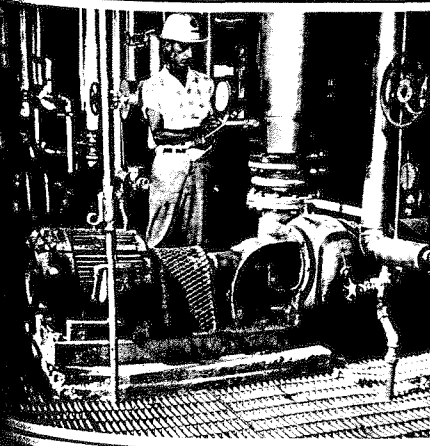
the most all important position in a silver
light money. A slower rate of indus-
try expansion and reduced activity
in other industries as pulp and paper
are hurt by the high market.

These divers are obtaining the
equipment to expand their valve lines
in the Gulf. It is believed, however, that
they will not be sufficient to allow them to work
up to their valve depths as easily
as some of the other oil and gas producing
countries from the North Sea and
the Gulf of Mexico. It is also anticipated

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THE UNITED STATES OF AMERICA

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Fluid Handling Systems

Fluid Control Continued

a wide range of valves for the new liner *Queen Elizabeth II*. Among these were a number of bronze wedge gate valves from Glenfield & Kennedy, one of the few makers of this valve in sizes that can be used economically in shipbuilding.

Crane-Glenfield (S.A.) Pty. Ltd., in South Africa, the largest valve manufacturer in that country, experienced a growing demand for cast steel valves for chemical applications.

In France, Crane S.A., introduced a variety of valves in 1967, including Gem ball valves and Gem modified ball valves for gas service, butterfly valves for use in oil tankers and stainless steel ball valves for the chemical industry. Two branch warehousing operations were started in 1967, and several additional branches are planned for 1968. These will increase market coverage and permit improved customer service.

Crane G.m.b.H. added new warehousing facilities in southern Germany. Coupled with the new valve manufacturing plant at Herne, this will provide better coverage for the German natural gas distribution and chemical industries, the Company's primary markets.

In Spain, Crane-FISA, S.A., brought out new bronze, gate, globe and check valves. The subsidiary is one of the leading Spanish suppliers of valves, especially cast steel gate valves. Most of these are being supplied to Spain's developing petroleum and petrochemical industries.

Crane-Deming de Mexico S.A., already a leader in water system pumps, is expanding its manufacture of valves. This line will be extended

to serve sugar mills, petroleum storage and general industrial use.

Through Crane Australia Pty. Limited, Crane valves were specified throughout the vast new bauxite plant, Queensland Alumina, at Gladstone, Queensland. This is the largest capital expenditure project in the history of Australia.

Major Pump Line Expansion

Crane serves industry's need for a variety of pumps through its Chem-pump and Deming lines. There are three major plants in the U.S. engaged in the manufacture of pumps. Pumps are also produced by Crane's subsidiaries in Spain, Mexico, England and Canada.

Other overseas units are introducing U.S. pump designs as market conditions and capacity to provide service develop. Crane Australia has begun to manufacture several Deming pumps. Pumps will be made in France when the new plant is completed. Crane's Mexican unit expects to add additional warehousing space in 1968 to broaden its distribution.

In 1967, Crane introduced a number of new pumps for a variety of uses. Chempump, leader in sealed motor pumps for leakproof applications, completed the introduction of a metering pump line. This line offers the chemical industry leakproof diaphragm design that vastly improves liquid metering accuracy and requires about 40 per cent less horsepower to operate.

Chempump achieved a technical breakthrough in the handling of highly toxic liquid chlorine. The new Crane Chempump Chlorine Unload-

ing Unit is of a leakproof design which keeps chlorine below boiling point, prevents gasification and eliminates costly and dangerous leakage. There is a sizeable market for its use since liquid chlorine is widely used in the chemical industry.

The Deming Division, which traditionally has been a leading supplier of pumps for residential water and heating systems service, has diversified its product line from one primarily connected with water systems to one capable of serving the needs of the continuous process industries. Its AVS pump, introduced in late 1966, was successfully marketed in 1967, being specified in a number of important projects.

Also introduced during 1967 were 11 sizes of new vertical in-line pumps that can be installed along a pipeline as a valve would be. The new pumps eliminate problems of coupling and alignment and require no special foundation, features which solve design problems for chemical engineers and reduce installation costs. The pumps are part of a "family concept," paralleling the AVS pump sizes, so that Crane designs make the most of parts interchangeability and reduce inventory requirements for users.

Deming also introduced a new hot water circulator pump and a new line of low-cost jet pump water systems, both of which find standard usage in home heating and water supply.

New Crane pumps planned for introduction in 1968 include multi-stage split case pumps which are used for higher pressure applications. These pumps are expected to have consid-



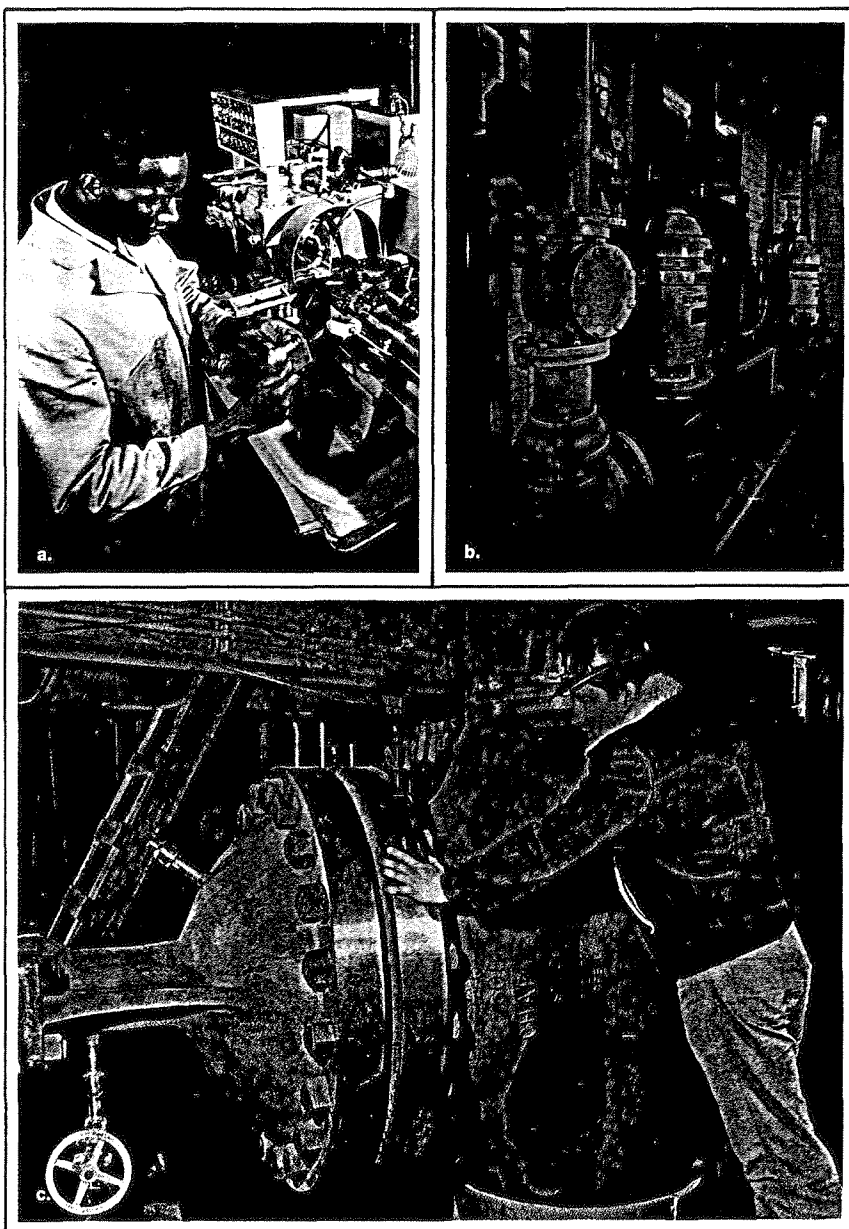
erable potential as technological advances utilize higher temperatures and pressures in industrial processing. In addition, Crane will also introduce redesigned deep-well submersible pumps and will further develop the liquid chlorine and vertical in-line pumps, both of which have significant market potential in the chemical industry.

Water Meter Line Developments

In an allied area, Crane continued to develop its water meter line. The market potential is great as concern for water conservation by municipalities and the Federal Government intensifies. Crane now produces a five-eighths-inch model that can be fitted to 90 per cent of presently-metered homes in this country. By the end of 1968, development of the line will be completed, with sizes through two inches to serve all domestic and industrial water meter needs.

In England, Crane Ltd. introduced improved liquid meters released from R & D in 1967. This work abroad will greatly aid Crane in its domestic water and industrial meter marketing, once the meter line is complete through two-inch models.

At the beginning of 1968, the Company introduced its pressure seal water meter. This solves technical problems for water companies in applications where meters closest to street distribution pumps may tend to leak under pressure. Wide reception by water companies is expected.

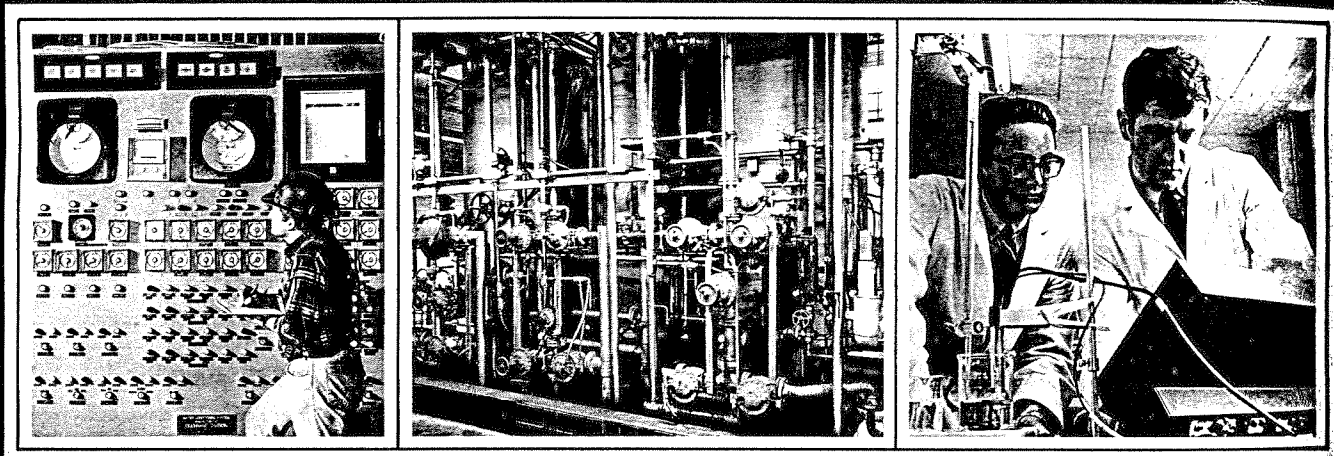
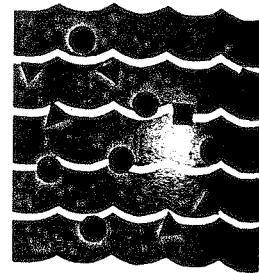


a. Extensive modernization of brass valve manufacturing facilities in the Chicago plant was completed in 1967.

b. Deming turbine pumps, as well as Crane valves, are installed on water supply service at

c. Chapman 26-inch stainless steel split wedge gate valves—100% x-rayed and dye-penetrant tested—act as stop valves on the recirculating water used in the boiling water reactor at a New Jersey nuclear power station.

Fluid Handling Systems Water Treatment & Purification



Continuous Control System controls the
operation of the water treatment system.
It is a key component of the system.

The external circulation system for the
Ammonia Process is installed in a large-diameter
main in the plant.

Continuous research into many
water treatment conditions and
processes is being conducted in Canada and
abroad.

The field of water treatment is expanding rapidly. The demand for clean water is increasing, and the need for efficient water treatment systems is becoming more acute. The water treatment industry is facing many challenges, including the need to treat a wide range of water quality, the need to reduce the cost of water treatment, and the need to protect the environment. The water treatment industry is responding to these challenges by developing new technologies and processes.

One of the most important developments in water treatment is the use of advanced control systems. These systems allow operators to monitor and control the water treatment process in real time, ensuring that the water is treated to the highest quality possible.

In addition, the water treatment industry is developing new technologies for the treatment of difficult-to-treat water. These technologies include membrane filtration, advanced oxidation, and other processes that can effectively remove contaminants from water.

Another important development in water treatment is the use of advanced materials. These materials, such as high-strength polymers and composites, are being used to build water treatment equipment that is more durable and efficient.

New Treatment Systems

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boilers of the new aircraft carrier, *John F. Kennedy*. Cochrane deaerators have been installed on most U.S. Navy capital ships since World War II.

Microstraining Projects Grow

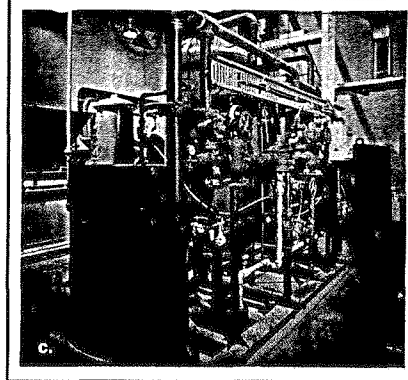
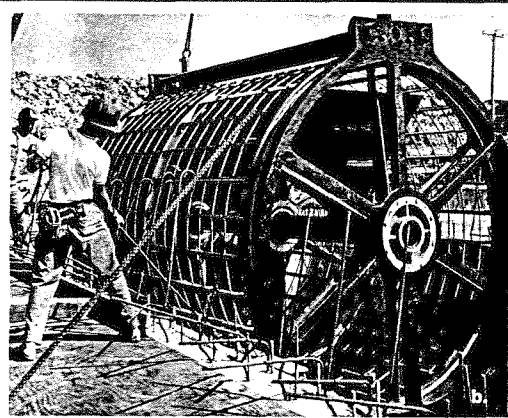
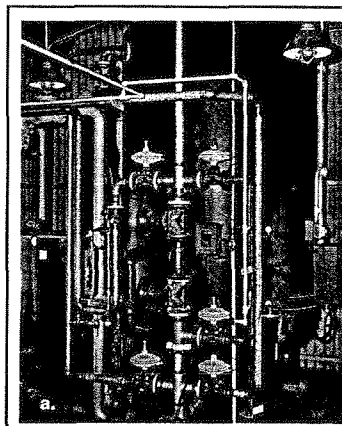
Increased recognition in the U.S. was given to Glenfield & Kennedy's Microstraining systems in 1967. Microstraining equipment is used to condition public and industrial water supplies by removing algae and other suspended matter, and to treat secondary effluents by removing microscopic particles and other impurities. New York City began to operate two Microstrainers. These were installed to test their effectiveness in water clarification at the Jerome Park Reservoir. The City of Chicago installed another Microstraining system for testing on tertiary treatment of sewage in its Hanover Park plant.

The Microstrainer is being redesigned to reduce its weight, simplify manufacture and provide for easier, faster installation. This is expected to increase the unit's use in municipal water and sewage treatment as well as open new applications in the treatment of industrial waste waters.

Recent Developments

The Federal Water Pollution Control Agency awarded Crane a contract in 1967 for a combined installation of Microstraining, ozonation and chlorination units in Philadelphia. The effectiveness of these processes will be tested in handling discharges that occur when flash storms overload municipal sewage systems.

Crane has developed a method of improving the life and performance



of electro-dialysis units used to remove salts from brackish waters. Based on the success of an initial contract, the Office of Saline Water is considering a second contract for more extended work in desalination.

Under a research and development contract with the National Research Council in Canada, Crane is investigating means of regenerating ion exchange resins to improve both useful life and performance in treating feedwater for steam generating units. Results to date indicate treatment cost can be reduced by improving both the performance and life of resins now used.

Crane has projects under study to develop processes for the removal of phosphates and nitrates from waste waters. Working with Chempro, Inc., an improved process has been developed for the production of phosphoric acid, which is used in fertilizer production. This is currently being licensed to engineering and construction firms specializing in chemical plants.

a. This Cochrane ion exchanger at a chemical plant in Kentucky helps up-grade product quality by removing the formic acid that is formed by oxidation in formaldehyde storage tanks.

b. Glenfield & Kennedy Microstrainer drum is being lowered into position at Chicago's Hanover Park Sewage Treatment Plant.

c. Crane Canada Limited furnished the double unit, semiautomatic Cochrane sodium zeolite softeners that provide virtually zero hardness water used in processing at the new Pilkington "float" glass plant outside Toronto. Cochrane demineralizers also provide mineral-free water for final rinsing of glass sheets during manufacture. The plant is exclusively equipped with Crane valves.



Comfort Conditioning and Sanitary Control

Crane has traditionally enjoyed a position of leadership in the building and construction industry as a supplier of quality plumbing, heating and air conditioning products. Sales and distribution facilities are maintained in the U.S., Canada, England, France, Holland, Spain, Australia and Germany.

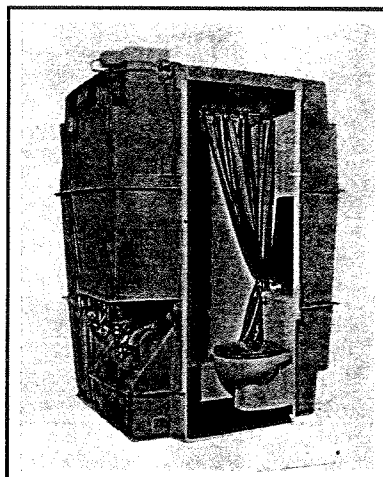
During 1967 Crane took some significant steps to maintain its prominence in the field.

Crane Canada Limited's acquisition of Reff Plastics Ltd. adds an exciting new product line. These prefabricated, fiberglass-reinforced modular plastic bathroom units will have significant potential in urban renewal and low-cost development-type housing. The complete unit weighs less than 400 pounds, is nested in three sections for shipment, is pre-plumbed and pre-wired and can be installed in a new home, apartment, motel, hotel or existing structure in less than half a day.

New Products Introduced

The two models of the modular bathroom now being offered were among 15 new products unveiled by Crane in December at the National Association of Homebuilders Exposition, the industry showplace for new building and construction products. Some other Crane products were a new "universal" bathtub which fits either left- or right-hand installations; an attractive line of inexpensive plumbing fittings; easy-to-install self-rimming lavatories in vitreous china and enameled cast iron; and new heating and air conditioning lines.

In total, Crane released over 25



Initial marketing plans call for two models of the modular bathroom unit. Molded entirely of fiberglass-reinforced resin except for a vitreous china water closet and steel lavatory, the bathroom features attractive interior styling.

new and redesigned plumbing products for production and sale in 1967. More than 20 new products are currently planned for release in 1968.

Crane also introduced a complete line of warm air furnaces in 1967 under its "Crane," "National-U.S." and "Thatcher" labels. Crane now provides suitable equipment for every conceivable home situation, heating, cooling, or all-season heating and cooling—at competitive prices for both new construction and home modernization.

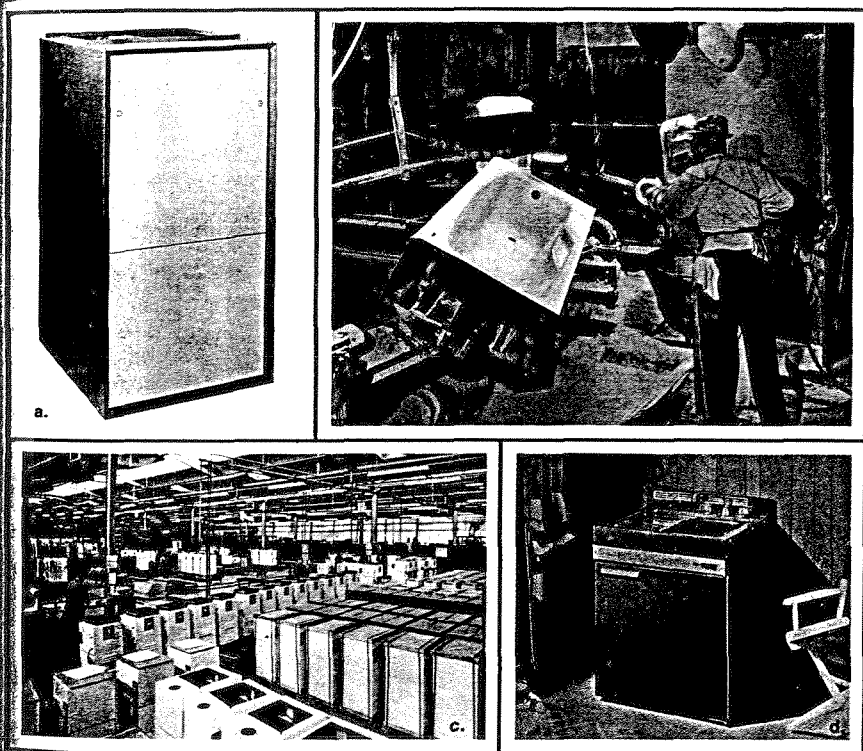
At the same time, Crane introduced a line of residential air conditioners which satisfy most residential needs. Models are available for either add-on installation to existing warm air systems, or for installations independent of heating units. Considerable redesign included many use-oriented features, such as special weather-resistant coating and an extra-large coil surface.

Crane is now marketing a complete electric warm-air furnace line and compact electric domestic hot water boilers to round out the Company's "all-fuels" capability.

Expansion and Realignment

In 1967, Crane began extensive modernization at the Colton, Calif. plant, a major source of vitreous china for the West Coast market.

In a move to increase production efficiency and customer service, Crane realigned some manufacturing facilities. Production of the Chef "compact kitchens" was transferred to Crane's Alliance plant which produces enameled plumbing fixtures. Warm air furnaces and air conditioning production were moved to Crane's Garwood and Duncansville, Pa. plants. Other residential furnaces and



New electric furnace for residential installation will respond instantly to heat load demands. b. "Empress" body-shaped bathtub receives a coating of enamel "frit" prior to having the finish baked on in kiln at the rear. c. Expansion of the Aycliffe plant (England) added this assembly shop and a fabrication shop for warm air furnace units. d. The Crane Chef "compact kitchen" line features several different units, in sizes from 29 to 72 inches in length, with both wood grain and color finishes.

ronic heating products are manufactured.

Crane Ltd. began further expansion of its Aycliffe plant to meet the demand for gas-fired residential heating equipment. The new extension to the plant will add some 87,000 square feet of space and follows a 200,000 square foot expansion made in 1966. The latest step is the third stage in a planned expansion increase in the plant's area to 350,000 square feet.

Marketing Activities

In view of the growth potential of the residential remodeling market in this country, Crane initiated the testing of its Home Modernizing Expert (HME) Program. HME is an extensive marketing program designed to show existing dealers and contractors how to participate more actively in the plumbing, heating and air conditioning modernization business. In cooperation with Crane wholesale distributors, the HME program was

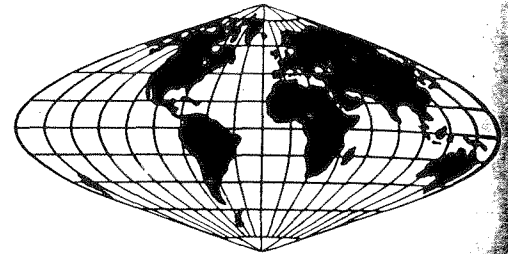
launched in 20 test markets in the last quarter of 1967. Plans call for doubling the number of participants during 1968.

The Company's market position has been strengthened in commercial and institutional construction by new products introduced in the last two years. A number of these products were specified in major projects in 1967. Crane designed a special vitreous china lavatory to meet the specific requirements of the new Hilton Hotel in Saint Paul, Minn. Also installed in the new hotel were "Diallese" bath, shower and lavatory fittings, "Criterion" five-foot bathtubs, and jet "Whirlton" closets.

The new Hilton Palacio de Rio Hotel, San Antonio, Texas, has a variety of Crane plumbing fixtures and fittings, including the new "Empress" tub. The hotel was built in record time in anticipation of San Antonio's HEMIS-FAIR, which will commemorate the city's 250th birthday this year.

In Canada, the luxury high-rise King Arthur Court Apartments in downtown Toronto were completely equipped by Crane Canada Limited. Main bathrooms contain a tub, vanity with self-rimming lavatory, water closet and bidet.

Crane's French subsidiary announced that Crane plumbing fixtures and trim were specified for an exclusive new apartment building in the fashionable 7th Arrondissement area of Paris.



Crane Co. Facilities

With the completion of new plants now under construction in Washington, Iowa, Brandon, Oregon, South Korea, France, West Germany and Madrid, Spain, Crane will have 49 manufacturing facilities in 14 countries. There are 22 sales locations in the U.S., 11 in Canada, six in England, two each in France and Spain, and one in Australia, Mexico, Netherlands, Scotland, South Africa and West Germany.

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Crane Supply Company

Chicago, Illinois

E. L. Hannon, Jr., Vice President

Hydro-Aire Division

Burbank, California

D. A. Lichty, Vice President

Acheson Manufacturing Co.

Rankin, Pennsylvania

G. R. Acheson, Jr., President

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Crane Canada Limited

Montreal, Canada

R. S. Reade, President

Crane Ltd.

London, England

Leslie V. Chater, Chairman

David Burns, Managing Director

Crane S. A.

Paris, France

R. D. Halpin, General Manager

Crane G.m.b.H.

Düsseldorf, Germany

Klaus Alms, Manager

Crane-Deming de Mexico S.A.

Monterrey, Mexico

H. F. McNiff, Manager

Crane Nederland N.V.

Deventer, Netherlands

G. DeHorn, Managing Director

Crane-Glenfield (S.A.) Pty. Ltd.

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Chicago, Illinois 60690

REGISTRARS OF STOCK

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The First National Bank of Chicago
Chicago, Illinois 60690

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Air Conditioning Products